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10/797,046	03/11/2004	Jung-hyun Lee	2557SI-001239/US	4688
30/593 7590 06/14/2011 HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 8910 RESTON, VA 20195				
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NADAV, ORI				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Response to Arguments

Applicants argue that “an Al₂O₃ film of Chang is a material for coating a surface of an article, instead of a dielectric layer (see col. 2, lines 44-64). The advantage taught in Chang for using a coated film that is made of Al and HfO is to improve resistance of a metallic article for oxidation and sulfidation. As such, Chang does not disclose a capacitor and/or a material for a dielectric of a capacitor. Accordingly, Applicants submit that one of ordinary skill in the art would not have been motivated to modify Cabral's capacitor to include the AHO layer of Chang, because Chang's AHO film would be used to coat a metal article in Cabral, which is not suggested because the technical field of Cabral is not related to coating a metal article”.

The examiner agrees that Chang does not disclose a capacitor and/or a material for a dielectric of a capacitor. However, the advantages of the AHO material taught by Chang et al. can improve the characteristics of the capacitor of Cabral Jr. et al. and Seidl et al. Although Chang et al. use the AHO material for different purpose (coating) than Cabral Jr. et al. and Seidl et al., the characteristics of the AHO material do not change and are still the same. Chang et al. teach that the AHO material improves the resistance of metal to high temperature environment and for oxidation. Clearly, the capacitor of Cabral Jr. et al. and Seidl et al. comprises metal electrodes. Therefore, the characteristics of said capacitor will improve by using an AHO material.

Furthermore, even if one disregards the teachings of Chang et al., Cabral Jr. et al. and Seidl et al. teach the entire claimed structure, wherein it is obvious to replace the first dielectric film in Cabral Jr. et al.'s device with an AHO ($(\text{Al}_x\text{Hf}_{1-x})\text{O}_y$) film, as taught by Seidl et al., because it is well known that substitution of materials is not patentable even when the substitution is new and useful. Safetran Systems Corp. v. Federal Sign & Signal Corp. (DC NIII, 1981) 215 USPQ 979.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ORI NADAV whose telephone number is 571-272-1660. The examiner can normally be reached between the hours of 7 AM to 4 PM (Eastern Standard Time) Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Gurley can be reached on 571-272-1670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

O.N.
6/13/2011

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